

Curlex[®] BLOC

Innovative Natural Filter & Shoreline Solution

Curlex Bloc Introduction

Customers across North America have been asking for an American-made alternative to coir logs and American Excelsior Company has answered with the development of Curlex Bloc. Curlex Blocs are manufactured in the U.S.A. with American fibers, as compared to coir fibers that are typically imported from half way across the planet. Curlex Blocs are designed to be functional^a for 3+ years. The standard biodegradable containment material is designed to start degrading during the first year to allow voluntary seed and sediment into the Curlex fiber matrix. The matrix of the Curlex Bloc is the key to the product's performance capabilities. The containment material is a carrier to assist with product shipping and placement into the field.

Environmentally Friendly

Curlex Blocs are manufactured from Great Lakes Aspen. Curlex Blocs are naturally seed free, non toxic, and native to North America.

Features:

Benefits:

U.S. Made with U.S. fibers	Supports U.S. economy and adds jobs; friendly carbon footprint compared to imported coir logs.
Made from Curlex	Barbed fibers "cling" to one another to add strength and stability; excellent natural filters of fines and hydrocarbons
Flat/Rectangular design	Allows for better stability and intimate soil contact
High Density	Better buffering of flow velocity
Organic	Can plant vegetation through matrix and natural fibers degrade over time
Moisture Retention	Promotes healthier growth
Sustainable Material	Renewable resource managed by sustainable forestry programs

Typical Curlex Bloc Sizes:

Product Name	Curlex Bloc	Curlex Bloc HD
Nominal Diameter	18 in x 16 in (45.7 cm x 40.6 cm)	18 in x 16 in (45.7 cm x 40.6 cm)
Length (+ 10%, - 0%)	8.0 ft (2.4 m)	8.0 ft (2.4 m)
Unit Weight ^b (± 10%)	14.0 lb/ft (20.8 kg/m)	18.0 lb/ft (26.8 kg/m)
Unit Ground Contact (minimum)	192 in ² /ft (4,064.0 cm ² /m)	192 in ² /ft (4,064.0 cm ² /m)
Density ^b (± 10%)	7.0 lb/ft ³ (112.1 kg/m ³)	9.0 lb/ft ³ (144.1 kg/m ³)

^aFunctional Longevity varies from region to region because of differences in climatic conditions.

^bWeight and density are based on a dry fiber weight basis at time of manufacture. Baseline moisture content of Great Lakes Aspen excelsior is 22%.



Earth Science Division

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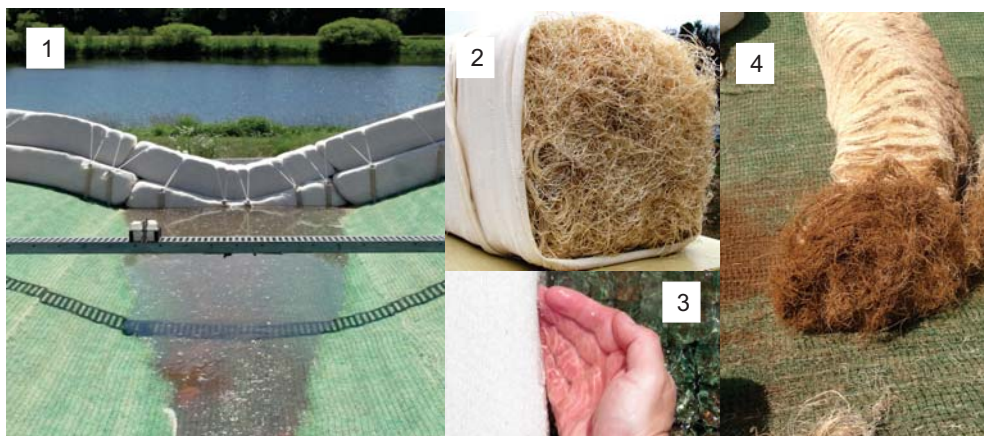


A Versatile Product

Curlex Bloc continues to be used in conjunction with vegetation on stream bank restorations and other shoreline applications with low energy and wave action, but each day contractors are finding new applications for the product such as replacing wire backed silt fence with Curlex Blocs to protect sensitive wetlands. Using versatile Curlex Blocs as natural filters is becoming more and more common each day. They are the most effective product we have seen that does not contain flocculating materials. Let us know if you have a new application for Curlex Bloc.



(willow live stakes and native sod used in this stream bank application)



1. Contaminated water channelized through Curlex Bloc Filter Station
2. Cross-sectional view of unused Curlex Bloc fibers
3. Clear, clean water exiting Curlex Bloc Filter Station on down slope side
4. Cross-sectional view of fine sediments captured by Curlex Bloc matrix after the flow (containment material was removed from Curlex Bloc for photo)

Performance Requirements:

Property	Value	Method
Flow Rate (GPM/ft ²)	≥ 35	ASTM D5141
Removal of Polynuclear Aromatic Hydrocarbons (PAHs) (%)	≥ 95	Quantified research ^a
Slope Soil Loss Reduction (%)	≥ 68	Quantified research ^b
pH Buffering	8 ± 3	ASTM D1117, modified
Fly Ash Filtering (TSS)	≥ 95	Quantified research ^c
Fly Ash Filtration (NTU)	≥ 88	Quantified research ^c

^aBoving and Zhang, Chemosphere 54 (2004) 831-839.

^bKelsey, K., T. Johnson and R. Vavra. 2006. "Needed Information: Testing, Analyses, and Performance Values for Slope Interruption and Perimeter Control BMPs." IECA Conference Proceedings. P. 171-181.

^cKelsey, K. and M. Murley. (2017, January). *Fly Ash Slurry Filtration Using Curlex® Blocs - Quantifying Total Suspended Solids and Turbidity Reduction*. Unpublished internal document, ErosionLab.



If you would like to receive more information or consult with one of our Customer Care Center Specialists, please call us toll free at (888-352-9582) PDF download specifications available in the Technical Support Library at www.curlex.com